

Remarks

This Amendment is in response to the Office Action dated **June 9, 2008**. In the Office Action, the specification was objected to; claims 2, 3, 9-12, and 16 were rejected under 35 USC 102(b) as being anticipated by Dragan (5,676,543); claims 5-8 were rejected under 35 USC 103(a) as being unpatentable over Dragan (5,676,543); and claims 2, 3, 5-12 and 16 were rejected under 35 USC 103(a) as being unpatentable over Jensen et al (6,305,936) in view of Futami et al (4,778,832), Hare (5,661,222), Kamohara et al (6,291,546), Zech et al (6,677,393), Amstutz et al (4,559,013) and Kostner et al (4,204,324).

The following comments are presented in the same order, with section headings, as the Office Action.

Objection to Specification

In the Office Action, the specification was objected to. Specifically, the Office Action asserted that the reference to the claims on page 3, line 25 was not in accordance with US practice. Although Applicants were unable to find a Patent Rule or a MPEP section that states that referring to specific claims in the written description is objectionable, Applicants have amended page 3, lines 25-27 of the application as filed. Applicants request withdrawal of the objection.

35 USC 102

In the Office Action, claims 2, 3, 9-12, and 16 were rejected under 35 USC 102(b) as being anticipated by Dragan (5,676,543).

To anticipate the instant claims, "each and every element as set forth in the claim is found, either expressly or inherently described" in Dragan (MPEP 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). Applicants submit that Dragan does not disclose each and every element of the instant claims.

Dragan discloses using a moldable material 10 and a viscous material 18 in order to prepare the teeth for an impression in order to make a bridge or crown using known techniques (see e.g. col. 4, lines 47-49). After the moldable material 10 and viscous material 18 have set in the mouth, the mold formed thereby is removed from the mouth and then the dentist makes an

impression of the teeth using known techniques (col. 4, lines 47-49).

Claim 10

Independent claim 10 recites in part "Method for isolating tooth material to be treated with liquid dental treatment means to protect the surrounding gingiva from the liquid dental treatment means, comprising ... applying the covering composition in a flowable state onto the gingiva around and not onto the tooth material to be treated."

The Office Action asserted:

Dragan clearly illustrates teeth 12 to the right of Figures 1, 2, 5 and 6 that are left exposed and isolated from the teeth and gum tissue to which the Dragan composition has been applied. The exposed and isolated teeth 12 to the right in Figures 1, 2, 5 and 6 are capable of being treated with a liquid dental treatment means.

Thus, the Office Action asserted that the teeth 12 shown in the right side of Figures 1, 2, 5 and 6 of Dragan are "tooth material to be treated with liquid dental treatment means" as recited in claim 10. Applicants submit that the gingiva around that "tooth material" does not have a covering composition adhering thereto and therefore, the gingiva is not protected from the liquid dental treatment means, contrary to claim 10. This is shown, for example, in Fig. 1 of Dragan, which has been annotated and provided below for reference. The teeth 12 shown in the right side of Fig. 1, the "tooth material to be treated with liquid dental treatment means" has been shaded a dark grey and the gum tissue 14 has been shaded a light grey.

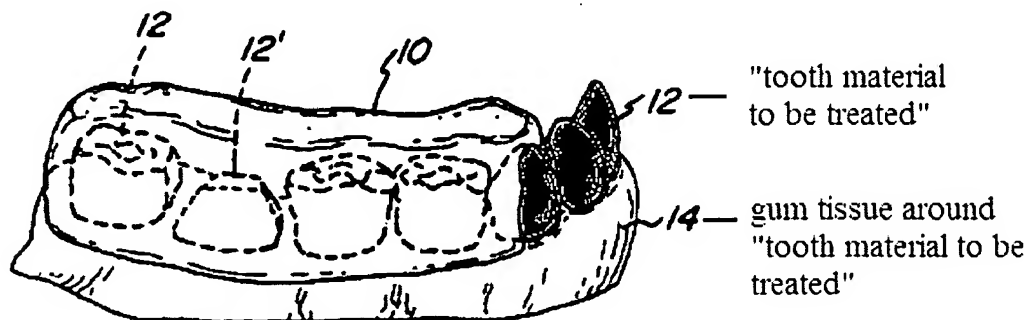


FIG. 1

As shown above, the gum tissue 14 around the "tooth material to be treated" does

not have a covering composition adhering thereto. Because there is no covering composition on the gingiva 14 around the “tooth material to be treated,” the surrounding gingiva is not protected from the liquid dental treatment means, contrary to claim 10.

Furthermore, the Office Action asserted that “[t]he exposed and isolated teeth 12 to the right in Figures 1, 2, 5 and 6 *are capable of being treated* with a liquid dental treatment means” (emphasis added). Applicants note that Dragan does not explicitly teach applying a dental treatment means to “[t]he exposed and isolated teeth 12 to the right in Figures 1, 2, 5, and 6” as asserted in the Office Action, only the teeth to the left of the Figures are being treated with a dental treatment means in Dragan. Thus, Applicants surmise that inherency is being relied upon to support the rejection asserted in the Office Action.

MPEP 2112 states that “[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic” and that “[t]o establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” In reference to process claims, MPEP 2112.02 states that “if a prior art device, in its normal and usual operation, *would necessarily perform the method claimed*, then the method claimed will be considered to be anticipated by the prior art device” (emphasis added). In reference to the burden of proof for the theory of inherency, MPEP 2112 states that “the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.”

Applicants submit that no basis in fact and/or technical reasoning was provided in the Office Action to support a theory of inherency. If inherency is being relied upon, Applicants requests a basis in fact and/or technical reasoning as required by the MPEP.

Furthermore, Applicants submit that Dragan would not necessarily perform the method recited in the instant claims in its normal and usual operation. As discussed above, in its normal and usual operation, the moldable material 10 and a viscous material 18 of Dragan are applied to teeth and then removed from the teeth so that a subsequent impression can be made

using known techniques (see e.g. col. 4, lines 47-49).

For at least these reasons, Applicants submit that Dragan does not anticipate the instant claims. Applicants request withdrawal of the rejection and submit that claims 2, 3, 9-12, and 16 are in condition for allowance.

Claim 17

Applicants have added new claims 17 and 18. Support for the claims can be found in the application as filed. No new matter was added.

Claim 17 recites:

Method for protecting gingiva from a liquid dental treatment means applied to tooth material adjacent to the gingiva comprising:

applying a covering composition to gingiva, the covering composition cross-linking in a self-curing manner at an ambient temperature in the mouth to produce an elastomeric material that adheres to the gingiva, the elastomeric material protecting the gingiva from a liquid dental treatment means applied to tooth material adjacent to the gingiva, the covering composition being applied to the gingiva in a flowable state, the covering composition being selected from the group consisting of A-silicones, C-silicones, or polyethers.

Applicants submit that Dragan does not teach or suggest a method for protecting gingival from a liquid dental treatment means applied to tooth material adjacent to the gingiva as recited in claim 17. Dragan discloses using a moldable material 10 and a viscous material 18 in order to prepare the teeth for an impression in order to make a bridge or crown using known techniques (see e.g. col. 4, lines 47-49). Thus, once set, the material 10/18 is removed from the teeth. Applicants note that before the material 10/18 is removed from the teeth, the material 10/18 prevents application of a liquid dental treatment means to the tooth material as the material 10/18 covers the tooth material. Additionally, once the material 10/18 is removed from the mouth, the material 10/18 does not protect the gingiva from a liquid dental treatment means applied to tooth material.

For at least these reasons, Applicants submit that Dragan does not teach each and every element of claim 17.

35 USC 103 – Dragan

In the Office Action, claims 5-8 were rejected under 35 USC 103(a) as being unpatentable over Dragan (5,676,543).

Claims 5-8 depend upon claim 2 which depends upon independent claim 1. As discussed above, Dragan does not anticipate independent claim 1. For at least this reason, Dragan does not render dependent claims 5-8 obvious.

Applicants request withdrawal of the rejection and submit that claims 5-8 are in condition for allowance.

35 USC 103 – Jensen, Futami, Hare, Kamohara, Zech, Amstutz, and Kostner

In the Office Action, claims 2, 3, 5-12 and 16 were rejected under 35 USC 103(a) as being unpatentable over Jensen et al (6,305,936)¹ in view of Futami et al (4,778,832), Hare (5,661,222), Kamohara et al (6,291,546), Zech et al (6,677,393), Amstutz et al (4,559,013) and Kostner et al (4,204,324).

The invention of Jensen is a barrier comprising a mixture of 1) at least a monomer, 2) a curing agent, and 3) at least one other constituent where the other constituents include polymerization strength reducers, tissue adherence accentuators, and reflective materials” (col. 6, lines 4-8 and col. 10, lines 4-9).

The Office Action asserted that “[w]hile Jensen et al disclose methacrylates, rather than the claimed addition and condensation silicones, Jensen et al do make clear that other materials having similar properties may be used to accomplish the method.”

Applicants disagree that the A-silicones, C-silicones or polyethers have similar properties to the methacrylate monomers disclosed in Jensen. For example, Jensen discloses that polymerization of the monomer generates heat (col. 4, line 16 and col. 7, lines 54-58). One of ordinary skill in the art knows that, unlike methacrylates, A-silicones and C-silicones do not generate heat during polymerization (see e.g. page 4, lines 24-25 of the application as filed: “Relative to acrylates, the substance class of the prior art, [A-silicones] are not obviously

¹ Applicants note that Jensen is discussed in the present application at page 2, line 14 to page 3, line 19 of the application as filed.

exothermic during the curing process”). For at least this reason, Applicants submit that the properties of methacrylate are different from the properties of the A-silicones, C-silicones, and polyethers recited in the instant claims.

The Office Action further states that “[t]o have merely substituted common dental A-silicones and C-silicones ... for the methacrylate compositions disclosed by Dragan would have been obvious to one of ordinary skill in the art, **particularly in view of Dragan’s disclosure that other compositions are capable of performing the disclosed method**” (emphasis added).

In reference to the monomer(s) that can be used for the composition, col. 7, lines 9-12 of Jensen states:

In addition to the above methacrylates, other monomers are within the contemplation of the present invention and can be found by routine experimentation by reading the disclosure and practicing the invention.

The disclosure of Jensen only teaches using a methacrylate monomer (col. 6, section A and col. 11, Examples of the Preferred Embodiments). Applicants note that even if the monomer used in the composition is not a methacrylate as disclosed in Jensen, the composition must include a curing agent and at least one other constituent, as disclosed in Jensen (Jensen, col. 6, lines 4-8 and col. 10, lines 4-9).

Applicants disagree that one of ordinary skill in the art would have substituted A-silicones, C-silicones or polyethers for the methacrylate monomer in the composition of Jensen. As discussed above, heat is generated when methacrylate polymerizes. Because this heat is generated, Jensen discloses adding a polymerization strength reducer and/or reflective material to reduce the amount of excess heat generated during polymerization (col. 7, section C and col. 9, section E). Additionally, Jensen discloses that the curing agent that is provided as part of the composition induces the monomer to cross link upon exposure to adequate light radiant energy (col. 7, section B and col. 9, lines 4-17 and line 29 and lines 38-39, emphasis added). Applicants note that neither Futami et al., Kamohara et al., Zech et al., Kostner et al., Amstutz et al., nor Hare disclose using light radiant energy to cross-link silicone. For at least these reasons, Applicants submit that one of ordinary skill in the art would not have substituted A-silicones, C-silicones or polyether for the methacrylate monomer in the barrier composition of Jensen.

For at least these reasons, Applicants submit that the combination of Jensen,

Futami, Hare, Kamohara, Zech, Amstutz, and Kostner does not render claims 2, 3, 5-12 and 16-18 obvious. Applicants request withdrawal of the rejection and submit that claims 2, 3, 5-12 and 16-18 are in condition for allowance.

Conclusion

Based on at least the above, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance of claims 2, 3, 5-12 and 16-18 is requested.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,
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